

"Frank Stiebel"<fstiebel@attbi.com>
To: richard.karney@ee.doe.gov
Subject: Energy Star ratings
05/15/2003 10:00
AM

Dear Mr. Karney,

I would like to offer my comments regarding the benefits of tankless water heaters and explain why they deserve an Energy Star rating.

Our company, STIEBEL ELTRON, was started in 1924 by my father, Dr. Theodor Siebel, in Berlin, Germany. Our specialty always has been electric water heating, both tankless and tank type (we do not manufacture gas water heaters). For example, we manufacture both wall mounted and floor standing tank type heaters. We also manufacture several non-pressurized types of electric water heaters that are point-of-use and can service only one tap. As far as the tankless electric units is concerned, we manufacture units with a capacity of 3.0 KW to over 30 KW, with both the bare wire type heating element and the copper sheathed type element. Our annual production is in excess of 600,000 electric water heaters a year. If you want to find out more about our company, please take a look at our European web site, which is www.stiebel-eltron.com or our U.S. web site is www.stiebel-eltron-usa.com.

Base on our extensive experience with electric hot water heating I can assure you that from the standpoint of energy use, the tankless system and point-of-use water heating is inherently superior to centralized tank type systems that are now common in the U.S. This is partially due to the elimination of stand-by losses. Even more so, the tankless system has to be seen as a whole new approach. Since the tankless units are small, they can be placed inside the house close to the locations where hot water is being used, such as the bathrooms, kitchen and laundry. This reduces the hot water pipe runs and therefore the use of water since the cold water no longer has to be purged from the hot water tap. The other advantages are space savings and the fact that there is an endless supply of hot water. Just based on its own merits, tankless electric water heaters will continue to climb in numbers in the U.S. but the concept also deserves additional promotion due to the savings of precious energy and water.

There is another factor that is important to mention in conjunction with tankless heaters. With traditional tank type systems, it is necessary to maintain a high temperature of 120F or more in the tank in order to kill bacteria that otherwise may grow. This is, on the other hand, a scalding hot temperature and the hot water has to be mixed with cold water in order to be safe. Each year there are many cases occurring where people get injured by water that is too hot. With a tankless system, there is no tank that may harbor bacteria and the water temperature can be set to about 105-115F, according to personal preference. These lower temperatures are much safer for people.

For comparison purposes, here are the approximate numbers of electric water heaters sold in Germany during the 2002 calendar year:

- Tankless electric whole house water heaters with electronic controls or mechanical stage type controls 567.000 units
- Tankless electric water heaters with less than 10 KW for point-of-use applications 57.000 units

- Point-of use small tank type heaters with a capacity of 4 gal. or less, the vast majority being of the open, no pressure type 593.000 units
- Wall mounted tank type units with less than 40 gal. 130.000 units
- Floor standing tank type with 52 gal. or more for centralized hot water systems 12.000 units

These numbers are known to us since all major manufacturers and importers report their numbers of units sold to an industry association. These numbers clearly show that tankless units and small point-of-use units make up the bulk of the market for electric water heaters. The floor standing electric models are a dying breed. The wall mounted tank type units with less than 40 gal. are a European specialty not found in the U.S. These units are typically found in apartment buildings and are usually mounted right in the bathrooms close to the point of use.

In addition, we know from our sales in the rest of Europe and throughout the world that tankless water heating is far more common than tank type water heating and that the popularity of the tankless concept is still growing.

We have been selling our point-of-use tankless electric water heaters with up to 10 KW in the U.S. since 1995. The numbers that we have sold of these point-of-use type units have grown every year since then. This year, we finally introduced a line of tankless electric water heaters with up to 28.8 KW, which is a capacity sufficient for whole house applications. The tankless electric whole house units will find a good market acceptance especially in the Southern part of the U.S. due the high ambient water temperatures that make the job easier for the water heater. For homes with more than two bathrooms that have tankless electric water heating an electrical service with more than 200 amperes is needed, which is not a technical problem.

Please contact me at 413-538-7850 if you have any questions.

With best regards,

Frank Stiebel
 President of Stiebel Eltron, Inc. USA
 and part owner of the Stiebel Eltron Group